

UNITED STATES  
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

9-138

IV.



*H. P. Ladd*

*Room 405*

*U.S. National*

*MUSEUM*

*IV*

*1940*

*Reviewed*

*7/42*

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1 22 Tuesday  
1945

Went to Longmeadow and saw George  
and then saw up to hill —  
1945-1946

Oct 22 Tuesday  
1940

Small conglomerate block near Stange  
'water' + found near top of hill  
227° ~~2200~~ - a more massive deposit near  
lower N. side - y. t. 250

Note there are two fragments come in separately  
- an upper in contact with last zone exposed  
near Kelly Brook

Oct 23

Wednesday

(for spec. 2L-  
34-500 ft)

36

Small set to 2860 or 2870

Very large block of stone on N. side, south of  
for some loc.) - contains exposure of better quality  
limestone + (possibly) in bed. (Made 2' for  
- small, common - some just broken. This  
block is all right, good to do. Bld 1655, 134  
Rev 2340

11th Feb 41

2.0 - small, 2' high, 1' wide, 1' deep

2.1 2nd set

2.15 lump R

2.65 - small, 1' high, 1' wide, 1' deep

2.75 - " " " "

2.85 - lump, 2' high, 1' wide

2.95 - lump, 2' high, 1' wide

3.3 - lump, 2' high, 1' wide

3.5 - lump, 2' high, 1' wide

2.5 cross creek  
3.7 ls - 20' below rd 12540  
3.8 cross creek

Sept 24 Thursday

36a Eden - Mayville ls. in gutter close to  
fault with Copper Ridge N 64 E, 30 S  
SE side Brushy Mt.

36b Henry ss to NW of Clinch appear to be sh (see  
cell) - no direct contact with Clinch formation  
~~entire ss to NW of Clinch~~

The fault on SE between what Brushy Mt. and  
Copper Ridge + the top ls of Eden - Mayville  
is faulting exposed down to highway bridge.  
- drag cleavage not shown

11/2 mi. toward top of the Eden Mayville  
rocks are thrown into a series of sharp  
drag folds - first I have ever seen

36c Tenoloway fossiliferous cel. along rd N of Rocky Bend  
- this zone just above contact with Clinton



(34)

1030-  
2.11.11

1190  
2905

905-  
875-

2015,  
1920

2375  
11/6/51

cit. 2775  
red 3770

$$= 10, 815'$$

2880 - Low Road - Clinton rd. outcrop  
 1000' - 1200' - E-W, to S. - N80W, 135

30.5

low

3580  
3060

→ 3060' elevation - base of mountain here  
This is western knoll of Sugar Run Mt.

3685  
3840

→ Clinch at edge N 70° W. 55

3860



3580  
3360' → slide down - low summit here  
Then on western knoll of Sugar Run Mt.

3685  
3840' → Clinch at edge N70W, 25S

3860  
3710'

Clinch about N60W, 15S.

4050  
3830'

low summit on ridge here

→ Clinch N70W, 22S -

4290  
3850'

Clinton road on road

Small exposure N. to 25S - 2 feet showing

4475  
3520'

→ 1st exposure on road = 4th knob E of Tower

4625  
3820'

→ Clinch at edge of road → N75E

4700  
3830'

Clinch heavy N70W, 10S - low ridge

4740  
3880'

→ Clinch at edge of road

4825  
3880'

→ Clinch at edge of road - 8th knob E of Tower

5265  
3820'

→ Clinch at edge of road N60W, 7S

5365  
3820'

→ Clinch at edge of road N70W, 15S

5500  
3820'

→ Hill top

5635  
3830'

→ Clinch at edge of road E-W, 8S - red Clinton

5920  
3830'

→ Clinch at edge of road N70W, 15S - 1st of first trav

5920  
3830'

→ Clinch at edge of road N70W, 15S - 1st of first trav

5920  
3830'

→ Clinch at edge of road N70W, 15S - 1st of first trav

5940  
3830'

→ Clinch at edge of road N70W, 15S - 1st of first trav

5940  
3830'

→ Clinch at edge of road N70W, 15S - 1st of first trav

5940  
3830'

→ Clinch at edge of road N70W, 15S - 1st of first trav

5940  
3830'

→ Clinch at edge of road N70W, 15S - 1st of first trav

Oct 26 Saturday

Completed at "upper" block above tower  
on H&M 719. Upper covered 5k but lower  
obscured by heavy brush. Soil. Time  
may be considerably more than 60' in  
summit area.

At 1.20 PM time in a deep well pit -  
at 1.2 - the point where fault line met up  
with

45 = top of steep slope - upper slope the side  
- not probably fault

55 +  $\frac{10000}{1000}$  45E 100

3.0 at 1.0 PM 15. Time 3.0 - 3.30 PM. Good?  
probably in place N55 E, 15N

At 1 and 2nd fault line upper well covered, but  
heavy, all way to base. 3 + 7

To north end of fault line with west of deep Home Gap - about  
3 mi W of road fork in gap - 3.40 PM, north of road  
highest crest at level 80' lower (= 3750 ±)

At Home Gap - descended 5 mi - down gully to N25W  
- got higher ground -  $\frac{10000}{1000}$  34.50 -  $\frac{10000}{1000}$  34.50 - heavy down.

$$\begin{array}{r} 7 \\ \hline 2 \end{array}$$



1.0 Little Horse Gap NW 1/4 - ~~with 4.55. SW~~

2.5 - heavy black soil below

2.7 - soil is flat, some heavy black soil, some  
more - not so heavy - maybe 1.0

37

2.75 - 100 ft. in depth N75E, 45W  
high N - much dipping with E + W. ; coll.  
Apidocromis, found trace of river bed, no stream  
pts of rock so irregular as to look like flint  
- like that outcrop on resultant + fork ridge  
some fresh in some "terrace" (about 7 ft  
high) - spec. made

3.2 little red capped with black clay

3.65 terrace - 150 ft. high

3.7 Ab + Bon - <sup>2</sup> - relation observed - 150  
repeated 3 - E-W, dip 5°

21 27

Sunday

38

Becroft fork (Apidocromis + brach) coll. at  
main excavation. Spec. later workings  
on south side with small pond on Ab. The  
place has N40E, 45W. (Note - VU are  
± hor.; but SE for N20E, 34N to 30N &  
clayey sand + fragments about 1.00 m.



3:10 at road - J.B.

Oct 29

Tuesday, weather sunny  
Remained in Thompson Hill E ss (Clinton?)  
along station creek at elev 2550.

Remained in Thompson Hill heavy gypsiferous  
ss. at 2700' (on the edge)

N4-E, 3N

N55-E, 15N

In left valley road to N55-E of survey exp.  
Climb on exp. to 2780' level - exp. low to NE

Pepper's Thompson Hill  
Up from road along - heavy bed - in N. side  
2400' level at elev 2960 - Clinton? look  
yellowish white - in gr. - ± fossil - do  
not look like it

at 3000' - similar to last ± low

at 3040' look 50' level

at 3160' - heavy bed - low & plane - mostly  
from to valley wall - look like fossil

at 3230' - look on floor high on E valley wall  
- ± hor. & curved *Aspidoceras*

at 3270' - look 100' level - heavy

at 3280' - 100' - OK

42

*O. brachyotum* (Clinton) along road from valley wall



32

Oct-21

Simon Majors' house just below Cornsata on NW side  
of Peter Mt - rd from Sweet Springs W. Va to Pant Bank,  
Va

33

Helderberg  
gr.

To Pant Bank, Va. to examine Standhope Wiedemann  
Co., Inc. mine. One section is a 2' bed of  
fine gr. sh. / slt, resembles ~~St.~~ & carries ~~Dev.~~ fossils  
& red bedded clay (residual from red rock?)  
Some parts brecciated - chert nodules rare. Thin  
replace ss. - not much good ore showing  
- ~~some~~ ~~more~~ ~~brecciated~~ - some ~~at~~ ~~just~~ - are said  
to be working on a drilling program.

There is ore on Va 311 above (N) of mine - deposits  
apparently in base of syncline - ripple marked Clinton  
dip under in road cut - has 4" bed of glauk.

Appalachian Iron Co., Simon Majors.

3 mi. SW of Sweet Springs, W. Va on State Route 3  
- 1/2 mi NW of pt - 350' above rd

Large bryozoan petromela, some can make 52%  
- on base (or mid) Mt. - in clay - residual from li?  
with chert - in main fault zone

Access road to increased as outcrop - in mine  
have gone down 60' without striking hard rock -  
outcrop 30' below mine tunnel - chert - probably  
Knox - ~~thrust~~ ~~on~~ ~~boundary?~~ Chert  
- 60-70' wide - ore in clay, strike - dip in clay  
rather than replacing chert - some ~~more~~  
on fault OH - younger li - W. - ~~chert~~ ~~on~~ ~~the~~  
- trench 500' (probably 1200') - up to 15' stopped 10

✓

5.1.21 Tuesday

at 10.15 glacially for analysis for water in  
 the lake from 10.15 to 10.30 but no water  
 came to surface 25 ft from 10.30 to 10.45  
 later glacially from the contact point  
 10.45.

10.45 - 11.00 in water at 2760 (2760 m)  
 11.00 - 11.15 in water at 2760 (2760 m)  
 11.15 - 11.30 in water at 2760 (2760 m)  
 11.30 - 11.45 in water at 2760 (2760 m)  
 11.45 - 12.00 in water at 2760 (2760 m)  
 12.00 - 12.15 in water at 2760 (2760 m)  
 12.15 - 12.30 in water at 2760 (2760 m)  
 12.30 - 12.45 in water at 2760 (2760 m)  
 12.45 - 1.00 in water at 2760 (2760 m)

at 1.00 in water at 2760 (2760 m)  
 1.00 - 1.15 in water at 2760 (2760 m)  
 1.15 - 1.30 in water at 2760 (2760 m)  
 1.30 - 1.45 in water at 2760 (2760 m)  
 1.45 - 1.60 in water at 2760 (2760 m)  
 1.60 - 1.75 in water at 2760 (2760 m)  
 1.75 - 1.90 in water at 2760 (2760 m)  
 1.90 - 2.05 in water at 2760 (2760 m)  
 2.05 - 2.20 in water at 2760 (2760 m)  
 2.20 - 2.35 in water at 2760 (2760 m)  
 2.35 - 2.50 in water at 2760 (2760 m)

2.50 - 2.65 in water at 2760 (2760 m)  
 2.65 - 2.80 in water at 2760 (2760 m)  
 2.80 - 2.95 in water at 2760 (2760 m)  
 2.95 - 3.10 in water at 2760 (2760 m)  
 3.10 - 3.25 in water at 2760 (2760 m)  
 3.25 - 3.40 in water at 2760 (2760 m)  
 3.40 - 3.55 in water at 2760 (2760 m)  
 3.55 - 3.70 in water at 2760 (2760 m)  
 3.70 - 3.85 in water at 2760 (2760 m)  
 3.85 - 4.00 in water at 2760 (2760 m)  
 4.00 - 4.15 in water at 2760 (2760 m)  
 4.15 - 4.30 in water at 2760 (2760 m)  
 4.30 - 4.45 in water at 2760 (2760 m)  
 4.45 - 4.60 in water at 2760 (2760 m)  
 4.60 - 4.75 in water at 2760 (2760 m)  
 4.75 - 4.90 in water at 2760 (2760 m)  
 4.90 - 5.05 in water at 2760 (2760 m)  
 5.05 - 5.20 in water at 2760 (2760 m)  
 5.20 - 5.35 in water at 2760 (2760 m)  
 5.35 - 5.50 in water at 2760 (2760 m)  
 5.50 - 5.65 in water at 2760 (2760 m)  
 5.65 - 5.80 in water at 2760 (2760 m)  
 5.80 - 5.95 in water at 2760 (2760 m)  
 5.95 - 6.10 in water at 2760 (2760 m)  
 6.10 - 6.25 in water at 2760 (2760 m)  
 6.25 - 6.40 in water at 2760 (2760 m)  
 6.40 - 6.55 in water at 2760 (2760 m)  
 6.55 - 6.70 in water at 2760 (2760 m)  
 6.70 - 6.85 in water at 2760 (2760 m)  
 6.85 - 7.00 in water at 2760 (2760 m)  
 7.00 - 7.15 in water at 2760 (2760 m)  
 7.15 - 7.30 in water at 2760 (2760 m)  
 7.30 - 7.45 in water at 2760 (2760 m)  
 7.45 - 7.60 in water at 2760 (2760 m)  
 7.60 - 7.75 in water at 2760 (2760 m)  
 7.75 - 7.90 in water at 2760 (2760 m)  
 7.90 - 8.05 in water at 2760 (2760 m)  
 8.05 - 8.20 in water at 2760 (2760 m)  
 8.20 - 8.35 in water at 2760 (2760 m)  
 8.35 - 8.50 in water at 2760 (2760 m)  
 8.50 - 8.65 in water at 2760 (2760 m)  
 8.65 - 8.80 in water at 2760 (2760 m)  
 8.80 - 8.95 in water at 2760 (2760 m)  
 8.95 - 9.10 in water at 2760 (2760 m)  
 9.10 - 9.25 in water at 2760 (2760 m)  
 9.25 - 9.40 in water at 2760 (2760 m)  
 9.40 - 9.55 in water at 2760 (2760 m)  
 9.55 - 9.70 in water at 2760 (2760 m)  
 9.70 - 9.85 in water at 2760 (2760 m)  
 9.85 - 10.00 in water at 2760 (2760 m)







2650  
2620

140  
50  
190  
2395  
2785

2620

2830  
Clinton, N.Y. in place 2845 above to Perry  
house - spring water run - This is probably  
top of hill.  
1180 E, 115 good Ch. below house - 2820 2800







unr. 3060 do rd unr. 30-35

[Note - best look at Little Ton & on road  
from spec in all light ferry. No more  
than set in way to SW of Little Ton  
- 1100 ft all through the area in only  
heavy Clinton]

2850  
1200 ft 2850 - 2850 ft on Heavy Rd  
(Clinton from - gully to south of D6)

2710  
2760 on Heavy Rd (from road to 1100 ft)  
in Clinton (⊕) in road - find in  
ferry and in road to south of D6

2740  
2740 on Heavy Rd - 2740

2800  
2850 on Heavy Rd N 85 E, S S good road,  
find 1100 - 3000 ft - 2850 ft - 2850 ft  
2850 ft - 2850 ft - 2850 ft

\* unr. no rd 3110 (up 50')

[Opening line S 20 E of 2nd g.l.]

119

July 28 Tuesday  
1967 35° 30' N 122° 15' W  
10 miles NE of 6-5  
NE 10 mi

7/10 - 1/10

47

3300 = 1000 + 2000

48

~~3/30~~ Henry Dr. 1998-1999

3250 3300 curly half 1000 1000, 1000

(Have her N35E of here)

3311 ~~3350~~ seven old pits in NW along here

~~3340 = 2~~ But it appears to exist

3370 ~~2~~ D1- 11 - 100000 - 100000

3390 *St. L. ...*

3410 ~~460~~ 11 1 12

344034 ~~all water~~ are now land (no water in lake)

16

Nov 6 Wednesday

Puller Cove Gap 3580' (3-31.24)

3450' - numerous flat spots, mossy. (Shade)  
at - not necessarily on flat

3340 - heavy snow flat in gully - large  
flat mosses on R & grassy (low) -  
in gully - on mossy (large) (low)

3200 - top of hill (low)

3150 - mostly mossy (low) flat, little (low)  
with (low)

3080 - mostly mossy (low)

3040 - " " " " - (low) (low)

3000 - (low) (low) (low) (low) (low) (low)

3000 - " " " " (low) (low)

3040 - " " " " (low) (low) - This may  
be (low) (low)

2890 - station 2825; on at (low) (low)

They occur on (low) (low) (low) (low) (low) (low)

more - (low) (low) (low) (low) (low) (low)

apparently (low) (low) (low) (low) (low) (low)

(low) (low) (low) (low) (low) (low)

[2825; low (low) 2825] - got (low)

(low) (low) (low) (low) (low) (low)

2780 - (low) (low) (low) (low) (low) (low)

(low) (low) (low) (low) (low) (low)

2700 - (low) (low) (low) (low) (low) (low)

2630 - (low) (low) (low) (low) (low) (low)

2420 - (low) (low) (low) (low) (low) (low)

2480





one small piece

2520 ft

2470 - top of hill - 1st F

2470 - top of hill

2450 - top of hill - 2nd F

2430 - top of hill - 3rd F

2330 - top of hill - 4th F

2360 - " L. creek stream

2360 - path

2380 - cross cr. from N

2360 - clearing - small stream

up creek to 2360 = 2nd. (Mangrove forest)

apparently in place L. creek stream; small clearing

2340 - cr. in clearing (L. creek stream)

2310 - cr. Xing L. creek (should be 2390)

2520 ft

54

2490  
2470 - in water - N40W Cr Xing - 2nd  
- at 10' water

2550  
2470 - top of hill - 1st F  
2400 - top of hill - 2nd F

2600  
2510 - strange ls. just and outcrop in stream  
bed - fine ls. in stream - 1st F - strange  
sought lead here - very red ls.

49

May 7-1942

Big house to Diamond Lake

3750 Big house Gap road (0 = 3100)

3700 - top of hill

3460 - top of hill - 1st F

3410 - top of hill - 2nd F (stump?)

3400 - " - 3rd F



- 3330 Clinton of hill 5 M strike N30E  $\pm$  4 dips. - but  
- some of large pits, dips - heavy beds of  
Clinton here.
- 3180 - all Clinton of 5 M - heavy ferrug. mat. -  
becoming common - small pieces?
- 3000 - mostly Clinton just above and below 19m  
- some good ore seen - no other ore.
- 2890 ~~2860~~ - all Clinton, - much mineralized from bottom  
here & back - mostly Fe.
- 2830 ~~2800~~ - D.S. iron fossils.
- 2780 ~~2750~~ - Don large & heavy here
- 2750 ~~2720~~ - D.S. just now large & heavy - not some
- 50 2730 ~~2700~~ - Don, hard, ferrug. glauconite - poor for  
ore. - Ab of ore here - this is  
of little use for
- 2710 ~~2680~~ - Back into Don field
- 2700 ~~2670~~ Don N75E - 15S (in place of 15S)
- 2670 ~~2640~~ small greenish glauconite
- 2600 ~~2570~~ mixed of 2 here - mostly Don
- 2550 ~~2520~~ ss. dark green & glauconite - probably Don.
- 2410 ~~2380~~ has not reached Don yet - can see heavy bed
- 2410 X ~~2380~~ - cross Diurnal (1st bed! see 2410)  
- Clinton & some part of 2nd Diurnal
- 2430 ~~2380~~ - mine of here
- 2460 ~~2410~~ - of same - Don also S of west zone  
- D.S. & Clinton ft here
- 2450 ~~2400~~ - heavy chert appear
- 2390 ~~2340~~ - cr. x - 107

4th bed, good no. 1. S of Diurnal (see 2410)

Nov 9 - Saturday

Point of Tower - see

Am. 4358 6-33.50

440-100 - 4025

[pace on the trip - 2.11]

{ 6480 - still Prod. to here - 2nd stage  
3820

860 - " " " " 10±5  
370

- 7296 - fische mit gelb blauen und 71

7.2-3 Church? or

{ 7355, N75E & S - C. incl. 55  
3700

19

57 { 7495 = long - pinkish red - may be least common  
2763 - are lighter & not color. NS - SS - BT  
= 720 - OK

7572, *Fraxinus*. - 100 ft. 500  
 1000  
 1620

52 { 75-91  
3803  
2760

7770 Nov 14

$\frac{1}{2} \times 4 = 2$   
 $\frac{1}{2} \times 7 = 3.5$   
 $\frac{1}{2} \times 8 = 4$

5000 Red at flake - ok when fresh

- heavy Cl. at foot below summit

+ 3870 } summit lower knob - base, elev. 50 to 100 ft.  
Red Cl. in summit

675' }  
3750 } - dip 20° E - white sand  
creek flat

3727 }  
3750 } - 3800' } - top of stream bed  
capped in all directions - on top of  
clined here.

4082' }  
5600 } - top of sand, shale, orange to red E. of  
T. road, ridge E. of road generally  
N 34° E, 20°

9420' }  
3200 } - 3500' } - top of brown, sandy clay with  
or shales [?]

10040' }  
2950 } - 3000' } - R. wall of valley - N 10° E, 20° W

Note: Db. on Holly Brook hill N 8° E, 80° S.

- \* 53 Trenching to base - see p. 18.
- 54 { Dbs - glauconite zone near base, exposed in pit N 70° W, 11° S  
- pit 7' deep in rock + 4' overburden - beds up to 2' thick  
- sample 54 from layer 5 1/2 ft. below surface  
- on land J.H. Hart; in rd. front of house = Dbs N 80° E, 55° S = crumpled
- 55 "Copper Mine" near Holly Brook  
- Dbs with pyrite + sph. water - in pit below glauconite zone - 11 ft. ± below surface



Nov. 12 - Tuesday

upstate - over One 60; Simon Meyer

inner set at 2200 main Bl (W 10 S, D = 33.5°)

56

230' ~~W 10 S~~ of NW side of main set or at top  
- the 2000 - much more massive - some  
burrows all to cement - 5' like Chert  
W 20 E 45 E ✓

57

upstate - all to NW over 20 - lower level  
at level 2500 (170' in 1861 years at  
level 2500 in 1861 years at level 2500)

- up to 150' high & lowest main set - 150' - 150'

58

N 5 E, 26 E - NW side of 2520 - 2500  
to main - on main - 2500 - 2500

59

250' ~~250' E~~ from side to side 250' -  
11-15 E, 25 E - the probably also Bl - see  
trunk & crumple - 1/2 - 250' - 250' (due  
to proximity to fault - 250' - 250' + 250'  
~~11-15 E, 25 E~~

60

250' ~~250' E~~ to SE to 250' - main set  
of side - 250' - 250' - 250' - 250'  
on to SE - at 40' = 250' - 250' ; at 160' =  
area (to SE) of main set - 250' - 250'  
at level 250'

61

42763 on hill E N (120 E) (mm) red Clinton  
first occurs, summed up of outcrop of what  
gtzite (Clinton) but holds up hill. Evenly  
is very thin in the area. The fault certainly  
lies between Eb. + mine + it (Clinton) is  
min. i. Min. dip would seem to be in  
Beekmantown on or very close to fault. There  
increasingly in a sag between two higher pts  
of ridge; altitude a good way to be measured accurately  
but at the hill  $\pm$  - in  $\pm$  slump. dip probably  $\pm$  5 E,  
likely Clinton is steep-sided

62

Clinton red + br, as on ridge 2500  
of mine or elev. 2610 - fault gtzite first  
observed just beyond - no change here

63

2615 on ridge <sup>Beekmantown</sup> Clinton outcrop  
N30E, 69E; 100 ft. to NW - more  
gtzite after some thin ferrug. as the suggest  
Clinton - NW pt. of outcrop in Beekmantown  
essentially all lies close to fault. Altitude at  
"Clinton" hole N45E 65E - a line section of  
younger water came from + 30 ft. to NW  
overturned close to fault. elev of Clinton "2600"  
- this section Clinton to town beyond Clinton is  
about 21 acres

64

Summed up the but in separate crop comes 15 ft  
ferry-foss. Eb. - N80E - E (slumped in pt.?)  
- base this exp. at 2580'

mean level = 2500'

65

Sliver (Berkman town) at NW Sect. of Creek  
at base of main hill (on SE) -  
N50E, 48E. - elev. 2215 - 25'

aner. checked in at 2170 (down 30')

11/13

W. boundary - Found Mt. area

N65E, 28E = Gr. with dip-slip. by Pd, SE  
with Rich. Mt. of same size & shape over dip Cr.  
This appears well up in section; good Clinton section  
is exposed in well - 38' cut to top - N75E 30'.  
Troughing to bottom but not well exposed -  
beyond Pd. The Gr. - section (but not  
look for Gr. This must be for section  
for Gr. for & E. minimum thickness

Don N20W, 13E - 15' - base of dip slip & in  
N of Fire Tower 1 -

Don N15W, 10E - 10' ± above Pd at p. 3 mi  
N of Fire Tower 1 - The good exposure of upper  
glauconitic zone (same as glauconitic zone in  
"base of Gr." - that is, only 1 mi ± south  
of here [?]) - section here for fossils -  
glauconitic. *Tagenell*

Gully the descending bands N15E of Pd Mt -  
Lands exp. pt. on NW 1.8 mi from base of Mt. area

- came in 7.1 mi out on Tanager Rd
- only 7.5
- 2nd crossing 8.6

→ [This is p 24 - out of place.]

11/11/11 - To ...



→ [This is p. 34 - out of place.]

Nov. 19 - Tuesday

2330 - 27 miles W of

$$1/5 \leq \lambda \leq 1/3 \Rightarrow \lambda \leq 1/3$$

72

34

Nov. 14 Thursday

Visit to Helbert Mine in Russell Co., Va.  
(Va. Bull pp 195-197, #124 and map).

- Helbert Mine (#125 on map) - 1/3 mi. SW of mine  
mine - now operated? (see map)  
- nothing done - no work

- S. C. Helbert - (son of A. J. Helbert)  
G. L. Taylor } dead  
J. P. Jones }

Mine much stopped since Nov 1908 - not worked  
till Aug 40

66 when mine stopped - take out 2 ton ore  
misc sample of mine (2 tons + 1 sack)  
- see next page

67 Sample from barn - claimed not picked  
Knox dolomite

67a = sample Horner (?) in field below mine  
Hickory shale

Horner limestone

Any recent drill tests? - auger at mine put

How mined now? - hand

28574

1450 →

20

3

12

Down of cuts are now opened

What a state of ruin & mine is to a little

down of water or washing

20'

3

12

Dug out a new opening

What a series of runs & more to a full set

Some of water in washing

Any more coming in - Kingfisher - NW-Vance, etc  
- now write

(66)

Get samples of ore & bedrock

2560' 1 run (same 0)

25' trench - 6' wide - 2 1/2' deep - 3 in

- all workings below this - 25' in bed & just

below - all old workings - hard, very hard

& played out - 1/2' deep - 1/2' wide - 1/2' deep

dump, played out

- 12' long & 18" wide - played out - on surface

in clay - all old workings - 1/2' deep - 1/2' wide

surface - rotten white - very hard

in clay - 1/2' deep - 1/2' wide - 1/2' deep

- 1/2' in full bedrock

Bank 6' high & 1/2' wide

Bank N 50° E

- 50° 45' ± to NW

h.s. 2470 - to S 45° W



71 v. 15 - Friday

68

N 71 E  $\frac{1}{2}$  S slightly calc. 2090  
- in soil - in bed of gully

69

Obs. on creek N 65 E valley - few yds.  
down stream on rd. west - elev. 2275  
elev. 2270 - 52 W of Holly Br. School  
- where H. conc. - slightly calc.  
Up stream 40 paces - elev. 2275  
N 65 E, 275

\*

2100  
From top of road at 2250 in yd  
the S.C. must be from - elev. 2100  
- 100 ft - 100 ft - 100 ft

2160  
over 2500 rd. E. Holly Br. School

GULLY West of Thompsons Hol. - from Ramsey Rd.

2840  
over 3050 rd. X

2730  
2700 - rd. - N 56 E 85 E

2695  
2585 rd. X

2650  
2610 - gully road 30 yds. down -  
2660 - rd. wall - N 56 E 85 - Chapter

N 56 E 285 on rd.  
on rd. 2610 (about 15' = distance) 29



2520

~~2775~~ - but in fine bed

2475

~~2650~~ - at 2200, 2000 - upper middle

Clinton in bed - much lower

only some L. about 2000 ft

2430

~~2650~~ - but lower bed, gully 5' or less

2420

~~2675~~ - Clinton 2000 ft - 2000 (R) = 100

~~2500~~

2410

Clinton in stream bed - gradient of stream slightly greater than the grade NDE, 55

2350

~~2720~~

Heavy lower Clinton 2000 ft in stream - 5

up. clay, 2' - 3' - upper middle

R. 12, 000 ft - good section

2270

~~2745~~

Clinton - 2000 - 2000 - slightly greater

than gradient of stream

2210

~~2550~~

Lower Clinton 5' - 10' - 1000 ft

(Clinton in stream)

2200

~~2375~~

Tr. 125, L 64

2170

~~2375~~

Tr. 125, L 64

2110

~~2375~~

Heavy lower Clinton 2000 ft in stream - 5

up. clay - 2' - 3' - upper middle

R. 12, 000 ft - good section

2080

~~2375~~

Clinton in stream - 2000 ft - 2000 (R) = 100

only some L. about 2000 ft

Clinton in stream

✓  
-Markman cut-off 3.75; to R on road Rd  
2755

26 ~~2755~~ 2755 - 2780 2780

2790  
2750, R-50, 240 - on Lualaba

2690  
To R. 2800 - 'Porcupine Spring' - on  
fault? - said to be 2' in  
summer

Nov. 16

Saturday

Trick south of  
Village of Chumby Rd - from creek Rd  
Cross at 3000 (0 = 3185)

26 ~~2755~~ 2755 - 2780 2780

at 2790 Road - good to 2780

2620  
2650 - stream from R - 2780 2780

2600-2610 - 10-15 above stream R. 2780  
N40E, 2W - 10' heavy ledge Chumby

2435 Dr. floor from R valley, 2780

2400? (clearing) - junction Dong 31 - good at 2780  
N35W 2W - 2780

Clinton roadcut on N. of road - 4<sup>th</sup> of September  
at 2365 -  $\pm$  the same above

2400  
2355 bench mark - but just from N. of road

2320 Clinton ss  $\pm$   $\oplus$  R. bit - 5' above

2365  
2345 " " 7° downst Rt. cr. level  
- near 5' ls contact at 6'

70 } upper foot Clinton in hand the 1' one  
bed 7° - under which is grayish  
bedded shale

71 }  $\frac{2350}{2570}$  Ls - Clinton contact 2' above on Rt. mt.  
coll. from ls. 3' above base

2255 - Clinton - in the pit 235 - 2400  
contact is about 23" above  
- dip away from the road - a transition

2240 = Dingler at South Hill

Clinton roadcut on N. of road - 4<sup>th</sup> of September

from 2570 2791

2650  
2730 - Clinton fl

2650  
2570 - first water gap - just on N. of road - 1' above  
first bench - below some very old

2450  
2530 - house

{  $\frac{2520}{2440}$  - 5' of spring stone - 1' above  
N. 56W, 9S

2430 - heavy Clinton fl.

2300 - long Bl. - heavy small Dec. fl.

2255 - very long Dec. - heavy forest on Bl.

<sup>2200</sup>  
~~2240~~ Dec. in place both sides point  
- N 60 E 1/4

<sup>2220</sup>  
2260 DC N 75 E 1/4 - still on road  
west side of R. all, all

<sup>2110</sup>  
2150 Bl. in Bl. in

<sup>2070</sup>  
~~2100~~ " " Gully rd (should be 2070)

[see p. 34 - below 25+27]



+ 70-200

Final Measurement Point

2400 as cr. - 100' 20' during land on

2000 as loc. N. bk. Point R. also 2470 = LS  
[and not entering above = 41' LS]

(see 2) at 11-15

to 2200

Final Remarks (cont.)

2400 on cr. - 1/2 mi. 20' down, back on

road W. side, N. bk. Rock Br. off 2370 = Ls  
 [Ls not along road = 40' ls.]

N20E 15E (Sharp?) = Chert white piece  
 on Rt bank of 2370

N60E 7NW, Tertiary in Mt. Park - is  
 level - if fault zone then only the  
 to be in N? with water ~~2200~~ 2320

definitely  
 or south  
 side fault  
 - on next page

\* → N50W = 4W (downstr) - Chert hard  
 black on 2270 - then mostly  
 chert to top Chert? (place noted  
 at 2280?)

2190 - Road bridge at rd. - "back at base  
 just left (50' too high - low faulting)

back just N45E 35W - what is =  
 Chert?

On to rd at corner up, left bank Rock Br.  
 2200' or more at south ± road? road

N5E, 30 SW - chert - 2240

as dip plane to E. Dip interpreted as  
 very + slantward - 50' to W

2  
18

135  
215  
215

215

2

This must be on N side of fault - only 50  
± above "chert" part in section - no room  
for Salt + Ton

✓

- 20

— 3 —

13

V

51  
945

250

Na. 20 - Wednesday

1455 W, 50 - Trenching at spring below pond on left Cr.  
Charlie Meadows house

E-10 20: - Lower River Zone w. Cor. 1000  
on 1000m D.P. - elev 2250 - river 1.

73

600. fault Don. of zone 2390 + ore  
60E of Garrison town. Good fauna. Spoken  
+ other fossils, St. Ignace, etc. This probably upper  
Garrison zone

For. fl. zone at base in cut (1.5 mi from  
road near Tinsley) at elev. 2200 in field  
source of coll. 72 - then & nearly entire

$\left( \frac{1}{100} \cdot 20000 \right) \cdot 35 = 7000$

2600 Top of Jo on golf ball in

- 2530 -

2261 - *Dracopis* 15' Lush - 37.

37.





3120  
N70E 37N - heavy  $\text{Cl}$  in some low ridges - some  
are white as coming in water (bed rock)

3040 (or ft to 1 bed) - heavy  $\text{Cl}$  bed<sup>18'</sup>  $\text{N75E} \pm 22\text{N}$

2870 - on line small pool

2860 -  $\text{Cl}$  flat

2835 Clinton - heavy  $\text{Cl}$  bed<sup>18'</sup>  $\text{N75E} \pm 22\text{N}$   
76 E-W, 115 - This may be good sample

2770 - flat  $\text{Cl}$  as probably Clinton - a creek  
but - the Silver Creek  $\text{Cl}$  come N of  
bed

2790 at least 20' above stream on R -  
- bed  $\text{Cl}$  2' - probably  $\text{Cl}$  bed may  
be  $\text{Cl}$  -  $\pm$  hor - under low ridge  
due to slump

2640  $\text{N70E} \pm 7\text{N} \pm$  - along stream - some on

2680 (too high) - on at least  $\frac{1}{4}$  mile below  
bed - on stream -  $\text{Cl}$   $\pm \oplus$

2630 m. - in place  $\text{Z}$ ,  $\text{N60E} \pm 21\text{NW}$

2611  $\text{N50E}$ ,  $13\text{NW}$ , good sample which Clinton

✓  
2570 - N50E, 10NW - hvy pr, grade Clinton

2500 - N50W, 7W Clinton in stream

2490 N55E, 7NW " " "

2465 N30E, 5W " " "

2415 or B.M (USGS 2419) - ± OK

11W 23

Saturday

~~monday~~ Hol

3060 to = 35,30

2900 (E 75°)

2840 mostly flv - Ton. ?

2820 = Clinton? fossil present

2675 = - mostly (if not all) drift - large  
stone on level at 2710.

2590 = - heavy Dr. flux - heavy bed steep  
dip slope

2440 - ~~240~~ - con. cr. R - cliff above - top at 2500  
level - N30E, 24W; typ. Dr. bed - no  
foss. seen, 1-2' thick, weather - 1000 ft. turn  
beds appear bedded

Crossed stream ~~24.5~~ to N. of road to house  
of Mr. at 2535, N. 25 25N

320  
2400 (In the last part of the road gully -  
in front of the house to the house gully -

250 - road to house (2250)

N. road - the house is on the road 2250 to NW  
3175  
- 2230 - road from house to road at road - road  
to road from house - only one camp (2250), no  
much road - on road to the N. the road  
across to the road (large mass of road to road  
but none to road) N. 25 25 - road 2250 - road

2 2250 E 75 N - Clinton Road Rd 1.5 mi NE of  
D. L. - distance 1

2.0 mi. road to house - road to house (2250) to  
N. of road at house - road 2250 - road

1100 25

Monday  
Upper road (road + Brandy Mt.)  
2390 (0-2360) - road to house of Mr. C.

N 65 E, 4 S - good road Clinton rd - 2400 - left  
side of road below rd Xing

Go S - (at A) gully road 4P  
1100 E

77

2430 - spring near road - rd. at junction

all main gully - leading up to at 2450 - group

2440 - early road - T502

78

2470 - ss. - fine - fairly loose - about 10 ft  
 but later more like clinton - though not typical  
 clinton - 100 ft - fine - sandy - parts of rock  
 are 8' thick & thin suggest 10'

2510 - typ. sh. Rd wall probably in place

79

2530  
 2540 - 160E 85 - at wall junction - sandy - good

2560 - 165E 35S - sh. - disturbed zone

2580 - good exp. sh. N70E, 27S - yellowish

2600 - 165E 45S - good exp.

80

2670 - now getting very much of sh. - 10 ft  
 very so called sh. in sandy zone (100 ft) - has  
 fairly sandy zone - parts are covered by sh.  
 L - sandstone - mostly are massive  
 sh. - part - particularly with iron  
 in part - sh.

2710 - 155E, 58S - sh. - must be approached, fairly



✓

2812  
2840 - still large mass of - several feet diameter  
+ still above floor

2850  
2870 - no the floor - looks on slope here for the

2920 - on the floor?  
2960 - still large mass of

2990 - small patch - showed with floor - in the  
NW section not overturned?

3000  
3060 - in line, corner of rock

81

3100  
3120 - half pt - small Bench Mt - head on  
floor - some dark by E. margin = Clinton?  
can find in the last section

82

3170  
3220 N 68 E 35 to the end of the section - 11  
- now shown 22 - Clinton?

3170  
3220 N 50 E, 20 S - dips steep on S, end of  
- same as last [in S E from 4th]

3160  
3270 N 10 E, 20 E good out - in E sample  
white friable ss

3110  
3160 - not the same out - found in N E  
to 31 - 32

13

3180  
3130 N 16 S - dip on N slope along bed  
(pt top of bed 3045 - Clinton)  
on N slope - bed half up mt)

84

~~3060~~ - 235 - place where crossed fault  
 N60E 30PS (good road) - see across fault  
 in N. road

85

~~3080~~  
~~3080~~ N60E, 22S - Don - good road - Then  
 section apparently overturned to N  
 of fault - 1/2 below fault  
 am on Dls. / fault

2970  
 3020 N60E 37S - Dls

2855  
~~2855~~ - still on Dls

2570  
 2655 at fault (about 1/2 to 3/4 way to fault)

2545  
 2650 - L of fault in section - Dls may

2390 be in place to hor.  
 2450 at Dismal Bay



11.3 over RR just N. Senter Sta see air map  
Clear Senter Sta 2480

11.55 DBZ E-W. 285 - variable - some +

11.65 at fork take L  
12.1 Cross creek - flow to L

See air map  
DBZ N/SE, 25 E - elev 2530 - over hill to N  
- return to 11.65 rd fork + take R

11.7 fork in rd - take L

12.1 Senter DBZ hill N50E, 26SE - elev 2640  
[Don?]

2820 - on Senter rd - separated from 2810  
deep gully, Senter rd just crossly road  
(in map) - heavy brown fernery (and  
- take L - DBZ N50E, 12 (or more) SE

2910 - just beyond - Don, N45E, 11SE - 12.55

2980 N45E, 13 SE - good view - on road  
dy. slope (ridge crest also slopes 15° SE)

3030 DBZ (Oriskany?)  
- good view, and from N60E 19SE

3090 Senter rd

3140 Senter rd N60E 12.5 - elev 13.2

3440 washin - Senter mine

N35E 10SE - rd - just beyond - over Rd ahead

3475 cross creek rd

3620 - 13.70 - at end of Senter mine

Boyd Lumber near

Sunder Mine (East)

at E end of  
workings

Have opened trench trending N30° E  
to 3615, width 12' - in brown  
& yellow ~~material~~ clay - but that of brown  
with layers of soft clayey sand -  
fine sand - ~~consistently~~ ~~at~~ - Ton  
- looks to be ~~consolidated~~ - upper  
half has occasional pieces of sand  
in thin bed - white fossils in  
by 3' sand, ~~consolidated~~ <sup>sandy</sup> clay - 30 p. N. trench  
6' or more below clay

- 12' or more material in yellow & green clay,  
consolidated, distinct & blackened

37 {

to a trench here 3615 - fairly banded  
sandy clays are folded & ~~unstable~~  
- in clay a group of - trench here 12'

(same as clay under No. 4 (clay))

nodules of ore in red clay above this are  
6 p. (W) side

at 37 p. trench (3640) only 2' below  
surface ground - are large pieces of ore

75 p. - ore clay to 6' below ground

20 p. consolidated with occasional yellow  
clay where ore has

(ore)



88 (ore)

ser. gr. road



3" soil

3" soil  
2600

Highland Branch

(E)  
just beyond clear head 2 other low fan open  
recently - similar to last but smaller - all  
? be just E of all valleys

is N25E5E on CCC Rd of Xing of Sinter  
min rd - 3496' looks like Clinton [?]

- probably Clinton
- from Xing of mine Rd to junction of  
CCC Rd + valley rd = 3.5 mi.
- sequence exposed - top mt. at mine  
to bottom - Dr - Cl - Don - Dr - Cl  
- Dr? Don? - Als
- W. mine probably = area of pits W  
of CCC rd. - Greenish wash in  
here too



Sat

Spring - Amer. 3700 ( $\phi = 32.5$ )

$\frac{277}{3105}$  is fully - checked with  $\frac{277}{3105}$  - heavy

913V 30

Sat

By Horse pass to DE

Spring - elev. 3700 (0 = 32.30)

2345 - 3400 in gully - checked with clinometer - heavy  
is in gully valley. Long on rd. with  
mostly center rd - gully trends few degrees  
W of road here -

2355 - 3030 water appears

2355 - 2755 - 20 ft down - steep slope below - in  
Dip about 20° - mostly bottom -  
heavy on slope, 15° down slope

2725 - 2800 heavy as if bottom E-W, 22.5 down  
10' above gully bottom in 4 ft down - not  
water

2725 - 2800 - bottom to level - dip down - gravel  
a large slump - in gully - high

about 2665 - 2700 - bottom - first 15 ft - just  
15 ft to point where at 2145 - 15 ft  
bottom - dip to right side of gully  
- crest is 100 ft distance above by slope that  
looks like 100 ft - dip down gully about 100  
ft - 100 ft - in 10 ft slope - like  
in low 10 ft 1. M of above mentioned hill  
Croy. I am in N75E, 20S - no fault  
indicated here - same fault floor on  
top hill is E - am about N80E of



2755

Brown's Rock - at elev ~~20~~ 20 on crest - on  
chert - around main slope between  
here & Brown's Rock there is a series  
of the chert big blocks - lies to N+E  
in depression - upper Almond Co.  
just below is in a flat - probably  
underlain by blue - high pit on  
Browns, elev 510 E

- brown at 2755 2655

- 2520 - 2655 (elev from gully above) - then  
outcrop dipping 5° ± 5° (or here goes 50°)

2405  
~~2570~~ - no sh on crest yet - crest about 65' here

2465  
~~2505~~ - " " " " - crest 3'

2455  
~~2535~~ - top of Almond (Cory 5000)

2410  
~~2495~~ - Almond - 7' - upper Almond  
(about to 2400 ± 75' to 100')

2500T - 2505 - 2510 ± here - sample 2 - S. Almond  
100 yds. ± 200 E. of point C

5280  
 .2  
 1056.0  
 5253  
 1056.0  
 1650



Dec 2 Monday

Area 2225 - entrance change  
 (0 = 3410)

Round Mt

- 0.00 - 2290' Va. State Fair Trail 11.00  
 Dls exposed in rd just off rd east - see  
 earlier work.





Line 2 - Monday

Cont. 2225 - on lower Shing.  
(0 = 3412)

Round Mt

- 0.00 - 2240 Va. Gt. Ls. Trail 1' 50"  
Dls. exposed on rd just W rd bend - see  
easier work.

- 0.2 mi W N30E, 29SE - 2320  
Dip, just beyond (50' interval)

- 0.3+ Dls. on R. W Shing. R - 2415'  
N50E 44SE

- 0.5 - N30E, 37SE - Dls. - weathered - 2445'

- 0.55 - just below 45+51 on R. - Dms. N65E, 15SE  
N. dip interval

0.7 N45E, 29 - bedded blue clay - Dls.?

0.75 Dls. folded + disordered <sup>just below</sup> 53+50 A

90' Dms. - low W - obscure - edge of bed -  
just above current

1.0+ ~~cont. from Dms. - 46p. Dms. - Chert. where~~  
~~the bed is - probably impossible to get a better~~  
N51E, 22SE - Chert. some fresh - but very  
many in soil Dls. - no good crop exposure

✓  
 - maybe enough room to get Dr + Ton in - there  
 is gully + covered interval above Clinton - then good  
 outcrop highly bedded Dr. - then Don to  
 turnout (78+56) - 1178 ft. = Don good road  
 - glauc. zone exp here + deep rd beds in Don  
 (due to weathering of glauc. z.) - note; Don  
 exp. at rd. level for 38 p. below turnout - good  
 upper + lower glauc. - etc. excellent place to  
 study Don + mileage here is 1.2 + rather  
 2680

- at 84+20 (about on sheet 7) Clinton is exposed under  
 outcrop - above it a bit of glauc. but below it  
 on rd are good crops of Dr + Don - there  
 seems little room for much Ton.  
 - at mileage 1.3 Don E W 21.5 (= Turnout at  
 82+93 on Sheet 7)

N75W, 28.5 = Don below 84+20 + N60W 29.5  
 to within 55 p. of Sta. 89+20 (4 p. of Don  
 about 12 p. are extremely Clinton sl. - rest  
 Dr. - room for very little Ton - note  
 all p. in strata - Cl. + young in exp.  
 Beyond Clinton at 87+20 - no exp. here.

0-36 p = covered interval for any T  
 36-63 p = Dr N70W, 27.5  
 63- = Don.

all Don in road between 84+96

gully at 99+19 in between Don & De  
Don EW 12 N75W, 25S - Db  
for 60 ft from center culvert - then back  
to Don

Sta 115+70 in gully below from Clinton

Db N50W, 20S - 0 paces

Dr. under area 45

N 60 E road 62 - Sta 115+9

73 = culvert

Clinton N55E, 12 40 - mileage - 2.0

dir 289°

2 N. 6 - all practically all section Clinton St. N  
N some E & in low white Bl. & Dr. in N some W  
& higher to E - all above section on underbank  
There can be very little ls on this mt. - if any

- 2.2 Clinton N55E, 18S

2.5 - " N55E, 20S

2.65 - " N60E, 16S

59+75 = mile 2.8 + elev 3140

mile 2.1

75 p. (on rd) below 159+75 Clinton arches under

Dr. N75W, 43S

20 p. (on rd) below this in corner from road

rd. - 15 p. below a regular Clinton N45E 15S  
← mileage = 2.8

Sta 159+75 on well marked Dr belt  
where much trenching has been done  
on both sides rd. - to R below rd.  
Dr here on bench. <sup>N60E</sup> At base, 30 ft but  
almost all

rd - 1.5 p below in regular cluster N40E, 10E  
 ← mileage - 2.8  
 Sta 159+75 in well exposed Dr. belt  
 where much branching has been done  
 on both sides rd. - to R below rd.  
 Dr. here on bench <sup>N60E</sup> at base, 30 ft but  
 at higher level beds are almost flat  
 - some more - see p. 58 for Calana rd.

Dec 3

Turn  
 To Charleston to see Boyer  
 Up CCC Rd 8 mi  
 2560 (0 - 34.10) - Road N65E - 10 E

90

N35W 55N - Ton 270E - + 10' also gully below  
 N75W, 47N (Dint) - probably in place 27E  
 - also gully below - car in SW E!

Cremor } Saltville, Va  
 Dinkler } Joint venture  
 Helvey } - Emory, Va

Lost mine ← 6000 tons prod.  
 not worked since taken to  
 West Mine last few years - 1000-2000 tons?

SE of old Lost mine - 11' pyritic band  
 "lost" - at base of all red soil layers



22<sup>10</sup>

91<sup>10</sup> / Jan 22<sup>10</sup>  
We E 2 9' 10" vertical in the floor  
" at mid morning place in a room  
" have yellow gold ore - 6' long  
" vertical - 1' 10" high  
" should run good place in  
" do more searching

-at 5.1 are depth where it is h  
sharply - cluster side here  
reported beyond the point

94

Back to main cluster noted above here Rd  
to NW of Rd in low area where cluster  
proposed for iron - red sample and  
for fossils - then cluster off but could  
get no minerals after long search

95

In legend (NW) of Fe in area (said to  
be 20 acres) altered locality  
extremely small - with iron. float to  
some cluster off - this to be trended.

2340 - elev Creek at bridge - N 45° W 116

- N 45° W 116 - small - also on N 45

also on - elev 2370 - 7. am. low water line  
N 30° W 116

Dist N 40° W 36 NE - 8 miles off - 2370 elev  
(dist ± fixed between this loc & 1st)

96

- up gully to 2510 - cluster N 65° W 27 NE  
- then 12, with green & red shales - note  
low dips from valley up ward

O P N 35 W

64 P N 10 W

97 78-10 E-W, 39 N gully - probably  
not a gully. Elev 2480

98 142-10 - 2445 - Top. 1150 28W - gully  
clump - 5-6' exposed

215-10 N40E (from 2445) 1155E gully

255 - Elev N45W, 45 NE - elev 2400

273 - RR

290 - Creek - Elev 2475 (to 2455)  
(same elev as 2445 but on N50E)

2380 - Cr. at mouth - Elev 2400

2440 - 24W, 25E - Elev - gully

2500 top, DE gully - Elev on Den  
(from up stream) N22E, 11E - Elev  
2450

2570 N20E, 24E - Elev on gully

on a DE - from 2445 N60W from Mill

2830 - DE - N35W of Mill - N15E ± 20E

99 3070 - Elev with mm replacing, N15W of  
mill 57

✓  
average in distance of 70 at least  
- occurred like it again - are 11 5/8  
below and the ridge

Dec 5

Thursday

Round Mt. - B. level to 200's to Garden

C. - Fire Trail #5019

0.00 - elev. 2290 (0 = 3112)

{ 2.95 Clinton N60E, 9 SE - rd below culvert } 164+00  
3100' " N70E 9 SE - " " " } almost?

- could get under B. from rd with change in log  
+ thin ls. only - opening narrow in gully, above  
rd - out at top Clinton?

3.1 Clinton N55E, 12 SE - heavy or (at 3.1 +  
Clinton these are disturbed - slump?

3.2 only green rd + rd - upper Clinton  
N55E, 11 SE

3.3 Clinton  
N75E, 5 SE

3.4 = 192 + 75

3.6 = Green Rd + rd to Senter Mine

3.7 + Clinton  
N75W, 35

4.05 Clinton

N15W, 14-20E - alt 224 + 20

4.2 Clinton

NSE, 15E - alt 222 + 2 (alt above  
current)

4.5 Clinton

N25W, 10E - quarter to road.

4.55 Red Clinton

N85W, 14N - slumped

4.7 Clinton?

heavy ss. - at road

N55W, 17N - alt 2570 - 257 + ? - alt stone

4.95 Clinton

heavy ss. - X-bedded

N80E, 45 - pts. of crop (D)

100

5.05 <sup>Clinch</sup> Clinton heavy X-bedded layers - up to 12'

N75W, 10N

5.2 Clinton

med. ss. - thin X-bedded

E-W, 25N - 285 + 20

101

5.35 <sup>Clinch</sup> Clinton heavy X-bedded - ss. - at road

N65W, 28N - 292 + 50 + back way

5.5 = creek Sta 298 - elev 3755

102

5.6 Sumata elev 3700 - N75W, 47N, red sh + ss  
= joint elev 304 + 00



S17 - E-W, 42N - Sumatra = 309 + 75  
E-W, 30N - " probably - sh  
& x-bedded m: some sh. yellow &  
sandy = 311 at contact with

N55W, 29N V. sh. still thin - and sh  
as - E-W, 42N - 311 + 75

5.7 - E-W, 42N Juncta = 309 + 75  
E-W, 30W - " probably - sh  
& x-bedded on some sh yellow &  
sandy = 311 or about that

N85W, 29N. Sub. still Jan - and sh  
- to 3 1/2" - file of Jan red  
= 313 + 00

5.8<sup>5</sup> N70W, 39N - Jan. = 318 + 75

5.9<sup>7</sup> Contact Jan + E-Magwell sand  
at Lta 319 + 90  
E-N7 yll-green sh  
N75W, 35N

N75W, 33N, E0 - May = 322 + 50  
- the last exposure (it being shot now)

Amended on or 2235 (-55 to low)

$$\begin{array}{r} 23 \\ 21 \\ \hline 44 \end{array}$$

$$\begin{array}{r} 2120 \\ 2600 \\ \hline 2380 \end{array}$$

June 6 - Friday

Visited hill S. of Diamond Cr. SSE of  
 Little Horn Gap (SE of Gap) - 2550  
 exp. good RR 800 ft. SS - area 2300  
 (0-31.00) - low ridge - low to 2120  
 - area Diamond Cr. 2125 (road level)

R. I

1-3 = Blank  
 4 - Big Horn Gap from Diamond Cr. - from  
 below under valley 1 level

Dec 6 - Jan 1

Visited hill S of Duermal Cr. SSE of  
Little Horn Gap. 15415 of Jan - 5' 256  
exp. 18001, 88 - same 2300  
10 = 21101 at base only - down to end of 2125  
- same level 2125 (not clear)

R. II

1-3 = Blush

4 - Bl. from top, from Duermal Cr. - from  
some water clearing on L bank

5 - Fresh

3 - Brownish - from Harrow clearing on  
R bank Duermal - 16 = 1/5 - 1/2 an  
red yellow

R II

143 Can. of Brown Duermal Cr. Mt.  
6 from base site 16 = 1/25 red yellow

104

Ten. from Harrow Cr., R. bank Duermal Cr.

In place on Harrow Cr. (end of  
Duermal Thompson Cr.) - R. bank just above  
W. Xing

Stanger from base 2nd level  
cut off from Harrow Cr. 11001, 2111  
Bl. - some red but not much

105

To sign ring on Harrow Cr. a heavy peeling plate  
not right in the way - blue waxy material - mixture  
of 20 (not to be confused?)

100 7

Saturday

to the Ross Gap 35-80 (0 = 31.70)

106

Clinton? Rock - boulders - elev. 3355 - about  
1/4 mi ESE Gap - on way.

Good view at 3340

Between peaks 2 & 3 up to 3380 - hills  
dip on steep dip slope N55E, 35SE  
- with large boulders from heavy 20 on way  
down to point 3 - (a 1/2 mile west of 3) point  
at base of the hill at elev. 3310

2000 ft. up to 3380 - elev. 3320  
on hill, 1/2 mi. ESE of peak - 33 - 345 - d  
3260 - on hill, 1/2 mi. ESE of peak - 32 - 345  
elev. 32 - 345 - 345 - 345

SE to Jenny Cabin Hollow - hd. at <sup>2975</sup> 3300  
where Clinton outcrop nearly N65W, 15S  
- good view 11700 - 11705 after reading

<sup>2995</sup>  
- 2960 - on dip slope on point - cliff face  
wall on a gentle NW - N80E, 7S - 3100. The  
heavy Clinton - like layers - base of cliff  
at <sup>2980</sup> 2905 - weather cliffs on L wall hollow

dip gradually increases down slope - 3100  
150 ft. elev. 2880 2805



0.1 mi NE of rd 8 - Fairview - there is  
a low exposure NW of Fairview rd - it is  
less 5' below rd - contains a lot of  
of water

63

Mr Markham has 15 year lease. Are  
240 owners. Burre property.  
Burre Truster gave lease to Markham  
- her 60-acre ± leased.

R. III 121 St. her contact Holly Brook - 2 bank

122 Burrey Mill Gap, left, SE on Holly St  
123 " " " " - closer

St. on Burrey Mill Gap (N. bank road) N53E, 54S  
- 1/2 mile up stream from where also exposed  
on N bank

124 St. - overturned - Burrey Mill Gap - F8 @ 1/25 - 25'

125 " " " " " " dips N62E, 43E, & N46E.

R. IV 126 } 126 } Dug pit in Eden-Marysville, St. 1, 116 Gap.  
127 } Tril. mass same & exposure

127/519

St. - 60' contact across St. 1, Holly Brook - 50'  
also on St. 1, contact with Holly Brook  
also on St. 1, contact with Holly Brook

Fairy - contact with St. 1, contact with St. 1 - 2270' ±

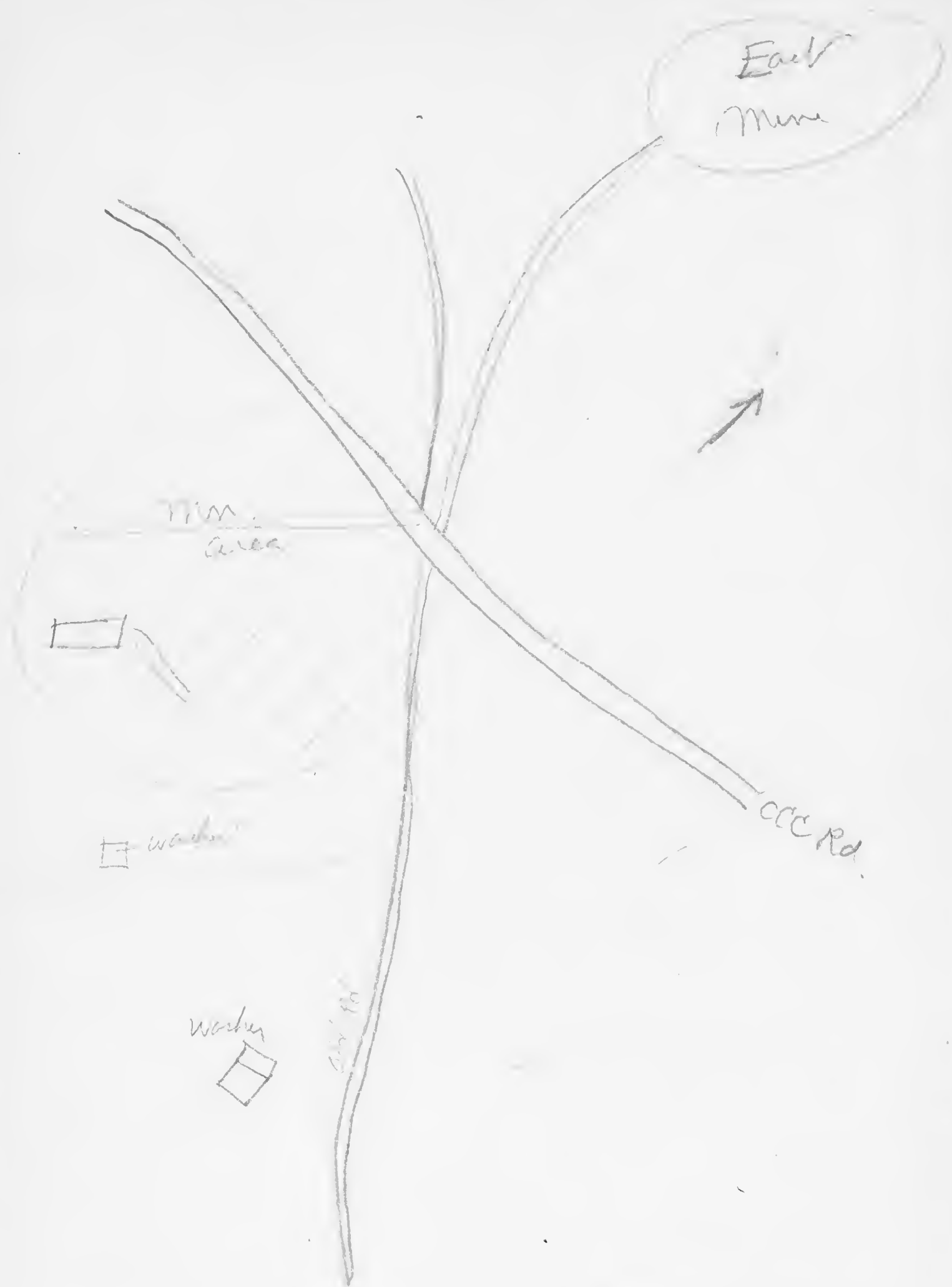
20 128 St. 1, contact with St. 1, contact with St. 1 - F11 @ 1/25

21 126 } 21 } Same St. 1, contact with St. 1 - 2270' ±

24 126 } 24 } Same St. 1, contact with St. 1 - 2270' ±

26 126 } 26 } Same St. 1, contact with St. 1 - 2270' ±





Sinter mine - West mine  
 Rd. mt.  
 1000 ft. above

parallel to foot track of Boyd

Dec. 10

-Tues.

Marcum ship to Mt. Park & Mm Co  
 -car every 5 days in good weather (35 & 40  
 long time for car) - leave from Byrnes  
 Hill -

Eastern Maine - West mine  
Red mt.  
1000 ft.

parallel to first track owned by Boyd

Dec 10

- Train.

Marquette ship to Mt. Saint & Main Co.

- car every 5 days in good weather (35¢ 40¢  
long tons per car) - learn from Bygones  
Henn -

- Maroon using 1/2 yd. gas. shovels

- Stange has shipped 17 cars since I  
have been here



Sto. Rock J. Section - 100' below  
 Dec. 28th

1 0 C-S28E-1

2 1 1-S36E-2

III

3 2 2-S35E-3

4 3 3-S37E-4

5 4 4-S24E-5

6 5 5-S16E-6

Base of Shinarump

Heavy Shinarump N65E, 30S

Arturophyton layer at  
 base of Sto 1/2 + 1/3

Clinton - Clinton contact  
 at 2/2 + 12

[ N 85W, 31S - mostly sand  
 4-5 ]

Clinton N74E, 39S  
 9-10

Heavy Shinarump layer at top  
 at 5/5 + 25 - Shinarump layer  
 at 5/5 + 25

Thin green ss

at 5/5 + 10 - layer at  
 top of - at 5/5 + 14  
 N75E, 28S - 5/6

7 6 6-S1E-7

8 7 7-S8W-8

9 8 8-S5W-9

In 8' of green ss - at 8/8  
 7 1/2 + 14

8 1/2 + 64 - top of Clinton N80E  
 30S

Dec 14 Sat.

Stopped in East Spring, Va. to keep  
appointment with Dr. W. L. Traubman & Dr.  
Moomaw, Jr., Eng. Geologists, U.S. Geol. Survey  
(due to my lat arrival after 4:30 PM I was  
arrived)

The Traubman claim 475-500 acres located  
6 mi. south of the town of Mt. Vernon, Va.  
from Bank Run (9 mi. N. to turn on  
Traubman property) - largely there is U.S. G.  
(see brief mention in *Geological Notes*), I suspect  
prospected for iron in early days, Traubman  
has a good series of tunnels along the old  
iron prospect & has uncovered some  
good iron. The line of the 2475 - or  
430' also pretty good - on SW side of the Mt.  
Vernon, Va. line N 69 W, 20° S at one point, at  
another N 45 W ±, 18° N - with something  
like Onondaga but contains chert. Today  
red Clinton floor was all around & he  
said the outcrop higher up is 500 ft.

